



FY 1999 Technology Deployment in Environmental Management

Engineering Tomorrow's Solutions Today

**Site Technology Coordination Group / Technology Deployment Center
U.S. Department of Energy, Idaho Operations Office**



Modular Dry Storage for SNF

Problem: Interim dry storage for Three Mile Island Unit 2 (TMI-2) core and core handling debris.

Baseline Technology: NUHOMS®, a proven independent spent fuel storage installation system for dry storage, has been in use at reactor sites since March of 1989.

Innovative Technology: The INEEL Modular Dry Storage installation is a NUHOMS® system modified to include venting of dry shielded canisters through high efficiency particulate air filters during storage. The license to operate this installation is the first Nuclear Regulatory Commission license DOE has ever received.

Comparison: Unlike other commercial fuel assemblies, the TMI-2 canisters have the potential for hydrogen gas generation due to radiolysis. The vent system will allow for release of the hydrogen gas and will allow for monitoring and/or purging of the system during operation.

Benefits: The Modular Dry Storage installation for SNF, along with the NRC license, enables new interim dry storage for TMI-2 canisters.

Non-OST

Modular Dry Storage for SNF



Idaho National Engineering and Environmental Laboratory